

G4068: Experimentation in the Social Sciences
Quantitative Methods in the Social Sciences
Columbia University

Professor Costas Panagopoulos
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Mondays 6:10PM-8PM
307 Mathematics Bldg

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Course Overview

The course is designed to provide students with a basic introduction to the use of experimental methods in political and social sciences. Students will be exposed to methodological, theoretical and practical aspects of experimentation. No prior knowledge of experimental methods is required.

The course aims to:

- (1) Introduce experiments as a research method in political and social sciences.
- (2) Provide students with an understanding of the basic methodology behind experimental design and analysis.
- (3) Critically analyze a selection of experimental studies related to social sciences.

Course objectives

Students will develop an understanding of the main foundations and assumptions of experimental methods in political and social sciences. Students will also gain insight into the experimental literatures and application in political science, economics, psychology and related disciplines. A core objective of the course is to hone students' ability to critically read experimental designs and conclusions.

Requirements

Participation (20%)
Presentation (10%)
Short Paper (20%)
Term Paper (50%)

Required Texts:

Druckman, J. N., D. P. Green, J. H. Kuklinski, and A. Lupia, eds. (2011). *Cambridge Handbook of Experimental Political Science*. New York: Cambridge University Press.

Field, A. and G. Hole. (2003). *How to Design and Report Experiments*. Sage Publications.

Shadish, W., T. Cook and D. Campbell. (2002). *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Wadsworth Cengage Learning.

Recommended Texts:

Gerber, A. and D. Green. (2012). *Field Experiments: Design, Analysis and Interpretation* W.W. Norton.

Morton R.B. and K.C. Williams (2010). *Experimental Political Science and the Study of Causality. From Nature to the Lab*, Cambridge University Press, New York.

Mutz, D. (2011). *Population-Based Survey Experiments*. Princeton University Press.

Course Outline:

Introduction to Experimental Social Science (January 26, February 2):

Druckman et. al.: Chapters 1.

Shadish et al.: Chapters 1, 8

Druckman J.N., D.P. Green, J.H. Kuklinski and A. Lupia (2006) “The growth and development of experimental research in political sciences”, *American Political Science Review*, 100, 627-635.

Gerber, Alan S., Donald P. Green, and Edward H. Kaplan. 2004. The Illusion of Learning from Observational Research. In Ian Shapiro, Rogers Smith, and Tarek Massoud, eds., *Problems and Methods in the Study of Politics*. New York: Cambridge University Press, pp. 251-73.

Rind, Bruce and Prashant Bordia. 1996. Effect on Restaurant Tipping of Male and Female Servers Drawing a Happy, Smiling Face on the Backs of Customers' Checks. *Journal of Applied Social Psychology* 26(3): 218-225.

Panagopoulos, C. (2011). “Thank You for Voting: Gratitude Expression and Voter Mobilization.” *Journal of Politics* 73 (3): 707-717.

Recommended: Morton and Williams: Chapters 1-4.

Key Concepts: Causal Inference, Randomization, and Validity (February 9, 16)

Druckman et. al.: Chapters 2-4.

Field and Hole: Chapter 1.

Shadish et al.: Chapters 2, 3

Holland, Paul W. 1986. "Statistics and Causal Inference." *Journal of the American Statistical Association* 81: 945-960.

Recommended: Gerber, A. and D. Green. (2012). *Field Experiments: Design, Analysis and Interpretation* W.W. Norton. Introduction, Chapters 1-3.

Reporting Experimental Research Workshop (February 23)

Field and Hole: Chapters 9-16.

Recommended: Gerber and Green: Chapter 13

Recommended: Morton and Williams: Chapters 7, 9.

Experimental Design and Analysis Workshop (March 2, 9)

Field and Hole: Chapters 3, 4-9

Shadish et al.: Chapters 4, 5, 8, 10-12

Ethics, Human Subjects Research and IRB (March 23) (Paper proposals due)

Druckman et. al.: Chapter 5.

Shadish et al.: Chapter 9

*Milgram, Stanley. 1963. "Behavioral Study of Obedience." *Journal of Abnormal and Social Psychology* 67: 371-378.

Zimbardo, Phillip. "A Pirandellian Prison," *New York Times Magazine* April 8, 1973.

*Singer, Eleanor, and Felice J. Levine. 2003. "Protection of Human Subjects of Research: Recent Developments and Future Prospects for the Social Sciences." *Public Opinion Quarterly* 67: 148-164.

*Pollack, Andrew. 2011. "Rule Changes Proposed for Research on Humans." *New York Times*, July 24.

Recommended: Morton and Williams: Chapters 11-13.

Laboratory Experiments (March 30)

Druckman et al. Chapter 6.

*Smith, V. (1994) "Economics in the Laboratory." *Journal of Economic Perspectives*, 8: 113-131.

Merolla, J. Guy Burnett, Kenneth V. Pyle, Sheila Ahmadi, Paul J. Zak. (2013). "Oxytocin and the Biological Basis for Interpersonal and Political Trust." *Political Behavior* 35 (4): 753-776.

*Andreoni, J. and R. Petrie. (2008). "Beauty, Gender and Stereotypes: Evidence from Laboratory Experiments." *Journal of Economic Psychology* 29: 73-93.

Haley, Kevin J. and Daniel M.T. Fessler. (2005). "Nobody's Watching? Subtle Cues Affect Generosity in an Anonymous Economic Game." *Evolution and Human Behavior* 26: 245-256.

*Scharlemann, J. P. W., Eckel, C. C., Kacelnik, A., and Wilson, R. K. (2001). "The Value of a Smile: Game Theory with a Human Face." *Journal of Economic Psychology*, 22(5), 617-640.

Survey Experiments (April 6)

Druckman et al. Chapters 8, 31.

*Barabas, Jason, and Jennifer Jerit. (2010). "Are Survey Experiments Externally Valid?" *American Political Science Review* 104: 226-242.

Time Sharing Experiments for the Social Sciences (TESS): tessexperiments.org

*Greenwald, A. G., McGhee, D. E., & Schwartz, J. K. L. (1998). "Measuring Individual Differences in Implicit Cognition: The Implicit Association Test." *Journal of Personality and Social Psychology* 74: 1464-1480.

*Horiuchi, Yusaku, Kosuke Imai, Naoko Taniguchi. (2007). "Designing and Analyzing Randomized Experiments: Application to a Japanese Election Survey Experiment." *American Journal of Political Science* 51 (3) 669-687.

Recommended: Mutz. D. (entire).

Field Experiments (April 13)

Druckman et al. Chapters 8, 31.

*Berk, R.A. (2005). "Randomized Experiments as the Bronze Standard." *Journal of Experimental Criminology* 1(4): 417-433.

*William G. Howell and Paul E. Peterson. (2004). "Uses of Theory in Randomized Field Trials." *American Behavioral Scientist* 47(5): 634-657.

Gerber, Alan S., and Donald P. Green. (2000). "The Effects of Canvassing, Direct Mail, and Telephone Contact on Voter Turnout: A Field Experiment." *American Political Science Review* 94:653-63.

*List, John A. 2011. "Why Economists Should Conduct Field Experiments and 14 Tips for Pulling One Off." *Journal of Economic Perspectives* 25.

Panagopoulos, C. (2014). "I've Got My Eyes on You: Implicit Social Pressure Cues and Prosocial Motivation." *Political Psychology*. (DOI: 10.1111/pops.12074).

Gerber, A., G. Huber, C. Dowling, D. Doherty and C. Panagopoulos. (2013). "Big Five Personality Traits and Responses to Persuasive Appeals: Results from Voter Turnout Experiments." *Political Behavior* 35 (4): 687-728.

Gerber, Alan S., Donald P. Green, and Christopher W. Larimer. (2008). "Social Pressure and Voter Turnout: Evidence from a Large Scale Field Experiment." *American Political Science Review*, 102 (February): 33-48.

Recommended (Advanced Topics): Gerber and Green: Chapters 5-11.

Quasi-Experimentation, Natural Experiments and Regression Discontinuity Designs (April 20)

Shadish et al.: Chapters 6, 7.

*Sekhon, Jasjeet S., and Rocio Titiunik. (2012). "When Natural Experiments Are Neither Natural Nor Experiments." *American Political Science Review*, 106 (1): 35-57.

*Rosensweig, Mark R., and Kenneth I. Wolpin. (2000). "Natural 'Natural Experiments' in Economics." *Journal of Economic Literature* 38: 827-874.

Ansolabehere, Stephen, Alan Gerber, and James M. Snyder, Jr. (2002). "Equal Votes, Equal Money: Court-Ordered Redistricting and Public Expenditures in the American States." *American Political Science Review* 96(4): 767-777.

*Lee, David S. (2007). "Randomized Experiments from Non-random Selection in U.S. House Elections." *Journal of Econometrics* 142: 675-697.

Imbens, Guido and Thomas Lemieux. (2008). "Regression Discontinuity Designs: A Guide to Practice." *Journal of Econometrics* 142: 615-635.

Integrating Experimental Research (April 27)

Shadish et al.: Chapter 13

*Gerber, Alan S., Donald P. Green, and David Nickerson. (2001). "Testing for Publication Bias in Political Science." *Political Analysis* 9: 385-92.

Gerber, Alan S. and Neil Malhotra. (2008). "Do Statistical Reporting Standards Affect What is Published? Publication Bias in Two Leading Political Science Journals." *Quarterly Journal of Political Science* (3): 313-326.

*Ferguson, C., and Brannick, M. (2012). "Publication Bias in Psychological Science: Prevalence, Methods for Identifying and Controlling, and Implications for the Use of Meta-analyses." *Psychological Methods* 17 (1): 120–128. (DOI:10.1037/a0024445).

Green, D., M. C. McGrath and P. M. Aronow. (2013). "Field Experiments and the Study of Voter Turnout" *Journal of Elections, Public Opinion & Parties* 23 (1): 27-48 (DOI: 10.1080/17457289.2012.728223).

*Schmidt, F. L. (1992). "What Do Data Really Mean? Research Findings, Meta-analysis, and Cumulative Knowledge in Psychology." *American Psychologist* 47 (10): 1173-1181. (DOI: 10.1037/0003-066X.47.10.1173).

Rosenthal, R. and M. R. DiMatteo. (2001). "Meta-Analysis: Recent Developments in Quantitative Methods for Literature Reviews." *Annual Review of Psychology* 52: 59-82 (DOI: 10.1146/annurev.psych.52.1.59).

Recommended: Gerber and Green: Chapter 11.

Student Presentations and Conclusion (May 4)